

**ABSTRACT**

A method, apparatus and system enable improved demultiplexing in a virtual machine (“VM”) environment. Typically, guest physical addresses of the VMs are mapped to the physical page addresses of the host, thus requiring incoming packets to be copied from the host’s direct memory access (“DMA”) buffer to the destination VM’s buffer. Embodiments of the present invention unmap the guest physical address of the VMs from the physical page address of the host, thus freeing up a “pool” of pages to be mapped to the destination VM as necessary. Thus, by disassociating the guest physical address from the physical page address, embodiments of the invention eliminate the need for copying incoming packets from one buffer to another.